

**QUARTERLY REPORT NO. 30
SECOND QUARTER 2009 FULL-SCALE SVE SYSTEM
FORMER C-6 FACILITY, BUILDING 1/36 AREA
LOS ANGELES, CALIFORNIA**

by

**Haley & Aldrich, Inc.
San Diego, California**

for

**Boeing Real Property Management
Long Beach, California**

**File No. 28882-637
30 July 2009**

**HALEY &
ALDRICH**



30 July 2009
File No. 28882-637

Boeing Real Property Management
4501 Conant Street, Building 1
Long Beach, California 90808

Attention: Mr. Robert Scott

Subject: Quarterly Report No. 30
Second Quarter 2009 Full-Scale SVE System
Boeing Real Property Management
Former C-6 Facility, Building 1/36 Area
Los Angeles, California

Haley & Aldrich, Inc. (Haley & Aldrich) prepared this report to summarize the full-scale soil vapor extraction (SVE) activities conducted at the former Boeing Real Property Management C-6 Facility, Building 1/36 Area (Site), located at the northwest corner of Normandie Avenue and Knox Street, in the City of Los Angeles, California. The Site location is shown on Figure 1.

This report was prepared in response to Los Angeles Regional Water Quality Control Board reporting requirements and presents a summary of the SVE operations during the quarter.

OPERATIONAL GOALS

1. Reduce the mass of volatile organic compounds (VOCs) in the vadose zone to concentrations that do not present a risk to Site occupants or groundwater; and
2. Continue SVE activities during groundwater remediation to mitigate those VOCs in groundwater likely to have partitioned and entered into the vadose zone due to current groundwater remediation activities near the SVE well field.

SYSTEM DESCRIPTION

The full-scale SVE system consists of 46 SVE well screens (17 dual- and 12 single-screened SVE wells), a trailer-mounted 1,000-standard cubic feet per minute blower system, two 8,000-pound capacity granular activated carbon (GAC) vapor control vessels, a 10,000-pound capacity GAC vapor control vessel, and associated piping. The SVE well field and equipment compound location is shown on Figure 2. SVE pilot testing was conducted at the Site between July 2001 and March 2002; full-scale SVE treatment of deep soils at the Site started in May 2002. The full-scale SVE system operates under a South Coast Air Quality Management District Permit No. G1457 A/N 494154.

SYSTEM PERFORMANCE DATA

- Uptime (April 2009 through June 2009): 95.6%
- Estimated Mass of VOCs Removed (April 2009 through June 2009): 71 pounds
- Total Estimated Mass Removed (July 2001 through June 2009; Figure 3): 34,221 pounds
- Range of Influent Concentrations 14.2 ppmv to 15.5 ppmv
(As measured by a photoionization detector in parts per million by volume [ppmv]; see Table I).

Regulatory compliance vapor samples were collected from the influent, breakthrough, and effluent of the GAC vessels on 1 April, 1 May, and 1 June 2009. The analytical data from these samples, provided on Table II, indicates that the system is operating within permit conditions based on the renewed Permit to Operate dated 5 February 2009.

SYSTEM OPERATIONAL STATUS

The full-scale SVE system operation was similar to the previous quarter. No significant events were observed; if any occur in the next quarter, we will notify you.

PLANNED OPERATIONAL CHANGES

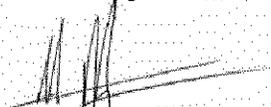
Based on the operational data collected during the reporting period, SVE operations will continue in the third quarter 2009 with no significant operational changes scheduled.

We appreciate the opportunity to provide environmental consulting/engineering services on this project. Please do not hesitate to call if you have any questions or comments.

Sincerely yours,
HALEY & ALDRICH, INC.



Patrick Keddington, P.E.
Senior Engineer



Richard Farson, P.E.
Vice President



c: Boeing Real Property Management; Attn: Mario Stavale
Los Angeles Regional Water Quality Control Board; Attn: Ana Townsend

Boeing Real Property Management

30 July 2009

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Enclosures:

Table I – Treatment System Field Data

Table II – System Laboratory Analytical Data

Figure 1 – Site Location Map

Figure 2 – SVE Treatment System Location

Figure 3 – Cumulative Mass Removed

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Table I: Treatment System Field Data
Site Name: BRC Former C-6 Facility
Location: Los Angeles, California
System: Building 1/36 Interim Action SVE System

DATE	HOUR	METER	TIME	BLOWER TEMP (deg F)	DILUTED TEMP (deg F)	DILUTED FLOW RATE (scfm)	UNDILUTED FLOW RATE (scfm)	VACUUM (inches of H2O)	HEAT EXCHANGER TEMPERATURE IN (deg F)	HEAT EXCHANGER TEMPERATURE OUT (deg F)	UNDILUTED SYSTEM INFLUENT PID (ppmv)	DILUTED SYSTEM INFLUENT PID (ppmv)	SYSTEM BREAKTHRU PID (ppmv)	SYSTEM EFFLUENT PID (ppmv)
4/1/2009	23863.3		19:30	NM	150	724	728	47.66	150	94	15.5	11.8	1.0	0.0
4/3/2009	23881.8		17:00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
4/10/2009	24042.8		10:00	NM	150	726	729	47.66	150	94	15.3	11.7	1.1	0.0
4/17/2009	24214.3		16:00	NM	150	724	728	47.66	150	94	15.0	11.4	1.2	0.0
4/20/2009	24284.3		14:00	NM	150	726	729	47.66	150	94	15.0	11.4	1.3	0.0
4/24/2009	24373.3		7:00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
4/29/2009	24504.8		18:30	NM	150	727	730	47.66	150	94	14.9	11.6	1.5	0.0
5/1/2009	24519.8		5:30	NM	150	728	731	47.66	150	94	14.9	11.6	1.6	0.0
5/8/2009	24642.2		6:00	NM	150	727	730	47.66	150	94	14.8	11.7	2.0	0.0
5/15/2009	24818.2		14:00	NM	150	728	731	47.66	150	95	14.9	11.9	2.1	0.0
5/22/2009	24988.7		16:30	NM	150	730	733	47.66	150	95	14.8	12.0	2.2	0.0
5/29/2009	25158.7		18:30	NM	150	725	730	47.66	150	95	14.6	12.2	2.3	0.0
6/1/2009	25224.2		12:00	NM	150	725	729	47.66	150	92	14.7	12.3	2.4	0.0
6/12/2009	25483.3		7:00	NM	150	726	730	47.66	150	94	14.4	12.3	2.3	0.0
6/19/2009	25650.0		6:30	NM	150	725	729	47.66	150	94	14.4	12.4	2.4	0.0
6/26/2009	25827.0		15:30	NM	150	721	726	47.66	150	94	14.2	12.5	2.5	0.0

Notes:
 ppmv: parts per million by volume
 scfm: standard cubic foot per minute
 **: Flow data skewed due to improper location of direct read flow sensor
 N/A: not applicable
 NM: not measured
 Heat exchanger turned off on February 7, 2007 to maximize carbon adsorption and restarted on March 11, 2007 due to system shut downs.
 - system running on dilution air alone
 Data collected by Tait Environmental Management, Inc. and its accuracy has not been verified by Haley and Aldrich, Inc.

Table II: System Laboratory Analytical Data
Site Name: BRC Former C-6 Facility
Location: Los Angeles, California
System: Building 1/36 Interim Action SVE System

SAMPLE DATE	LAB ID	SAMPLE LOCATION	COMPOUND																								
			Total Non-Methane Hydrocarbons (ppbv)	TPH-G (ppbv)	Methyl tert-butyl ether (MTBE) (ppbv)	Dichloro-difluoro-methane (ppbv)	Chloromethane (ppbv)	1,2-Dichloro-1,1,2,2-tetrafluoroethane (ppbv)	Vinyl chloride (ppbv)	Bromomethane (ppbv)	Chloroethane (ppbv)	Trichlorofluoro methane (ppbv)	1,1-Dichloroethene (1,1 DCE) (ppbv)	Carbon disulfide (ppbv)	1,1,2-Trichloro-1,2,2-trifluoroethane (ppbv)	Acetone (ppbv)	Methylene chloride (ppbv)	trans-1,2-Dichloroethene (trans-1,2 DCE) (ppbv)	1,1-Dichloroethane (1,1 DCA) (ppbv)	Vinyl acetate (ppbv)	cis-1,2-Dichloroethene (cis-1,2 DCE) (ppbv)	2-Butanone (MEK) (ppbv)	Chloroform (ppbv)	1,1,1-Trichloroethane (1,1,1 TCA) (ppbv)	Carbon tetrachloride (ppbv)	Benzene (ppbv)	
04/01/09	GAC0001X_AV040109_0001 ¹	Effluent	ND<200	ND<1,700	ND<2.0	6.3	ND<4.0	ND<2.0	35	5.0	2.2J	ND<2.0	ND<2.0	ND<10	ND<2.0	ND<10	4.9	ND<2.0	ND<2.0	ND<10	ND<2.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	1.9J
04/01/09	GAC0001B_AV040109_0001	Breakthru	ND<200	1,800J	ND<2.0	ND<3.0	ND<4.0	ND<2.0	3.9J	ND<4.0	ND<4.0	ND<2.0	1.6J	ND<10	ND<2.0	ND<10	1.2J	ND<2.0	ND<2.0	ND<10	ND<2.0	ND<10	ND<2.0	4.1	ND<2.0	ND<2.0	1.8J
04/01/09	GAC0001U_AV040109_0001	Influent	3,500	2,500	ND<13	ND<20	ND<26	ND<13	66	ND<26	ND<26	13J	1,500	ND<65	ND<13	200	6.7J	20	45	ND<65	130	1,200	33	460	ND<13	10J	
05/01/09	GAC0001X_AV050109_0001	Effluent	ND<200	ND<1,700	ND<2.0	2.7J	ND<4.0	ND<2.0	9.6	ND<4.0	ND<4.0	ND<2.0	ND<2.0	ND<10	ND<2.0	ND<10	1.3J	ND<2.0	ND<2.0	ND<10	ND<2.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<3.0
05/01/09	GAC0001B_AV050109_0001	Breakthru	ND<200	ND<1,700	ND<2.0	2.4J	ND<4.0	ND<2.0	10	ND<4.0	ND<4.0	ND<2.0	3.8	ND<10	ND<2.0	ND<10	1.1J	ND<2.0	ND<2.0	ND<10	ND<2.0	ND<10	ND<2.0	3.5	ND<2.0	ND<3.0	
05/01/09	GAC0001U_AV050109_0001	Influent	3,400	2,900	ND<12	ND<18	ND<24	ND<12	72	ND<24	ND<24	9.4J	1,500	ND<61	ND<12	210	7.6J	19	47	ND<61	83	940	30	280	ND<12	ND<18	
06/01/09	GAC0001X_AV060109_0001	Effluent	ND<200	ND<1,800	ND<1.0	0.89J	ND<5.0	ND<5.0	3.7	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<5.0	0.78J	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<5.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	
06/01/09	GAC0001B_AV060109_0001	Breakthru	ND<200	ND<1,800	ND<1.0	1.0	0.32J	ND<5.0	3.8	ND<1.0	ND<1.0	2.2	12	ND<1.0	ND<1.0	2.6J	0.75J	ND<1.0	ND<1.0	ND<1.0	ND<5.0	ND<1.0	ND<1.0	7.5	ND<1.0	ND<1.0	
06/01/09	GAC0001U_AV060109_0001	Influent	2,250	946	ND<1.0	ND<1.0	ND<5.0	ND<5.0	18	ND<1.0	ND<1.0	8.6	540	ND<1.0	ND<1.0	3.7	ND<1.0	9.0	24	ND<1.0	16	4.9	16	140	ND<1.0	ND<1.0	

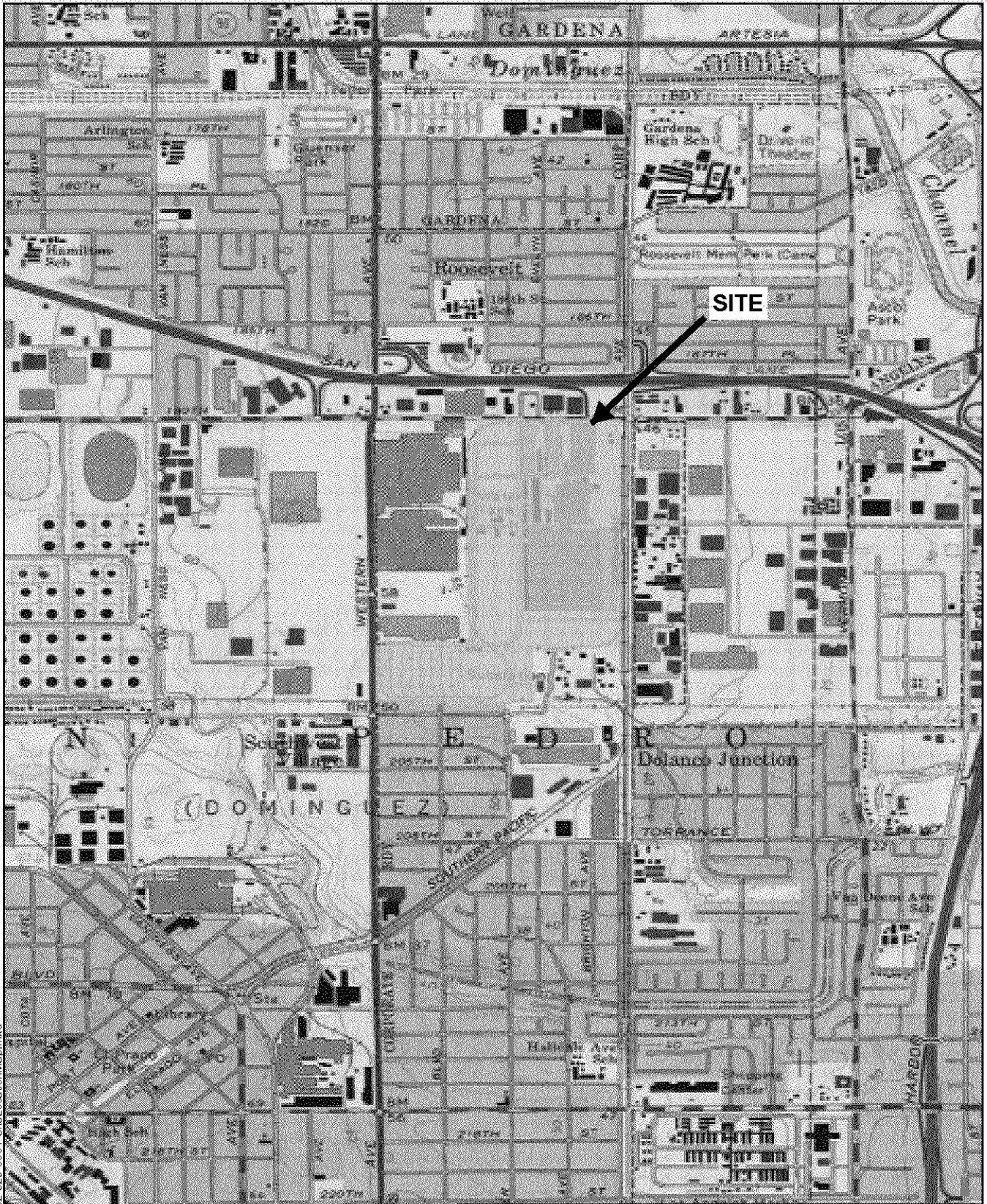
Notes:
 ppbv = parts per billion by volume
 ND = Not Detected at the laboratory reporting limit
 NA = Not Analyzed
 J = Estimated result. Result is less than reporting limit (RL)
 TPH-G = Results are indicative of compounds other than gasoline
 MTBE analysis was omitted by the STL laboratory for the samples collected on August 3, 2006.
 * Effluent AQMD Limits for Vinyl chloride raised from 5 ppbv to 75 ppbv as of 2/5/09.
 ** Effluent AQMD Limits for Carbon disulfide raised from 5 ppbv to 100 ppbv as of 2/5/09.
 *** Effluent AQMD Limits for "other trace toxic" compounds raised from 5 ppbv to 10 ppbv as of 2/5/09.
 I = Internal Standard recovery was outside of method limits. Matrix interference was confirmed by reanalysis. (For 4/1/09 effluent sample GAC0001X_AV040109_0001; Not including TPH-G Analysis)
 Data collected by Tait Environmental Management, Inc. and its accuracy has not been verified by Haley and Aldrich, Inc.

Table II: System Laboratory Analytical Data
Site Name: BRC Former C-6 Facility
Location: Los Angeles, California
System: Building 1/36 Interim Action SVE System

SAMPLE DATE	LAB ID	SAMPLE LOCATION	COMPOUND																							
			1,2-Dichloroethane (1,2 DCA) (ppbv)	Trichloroethene (TCE) (ppbv)	1,2-Dichloropropane (ppbv)	Bromo-dichloro-methane (ppbv)	cis-1,3-Dichloropropene (ppbv)	4-Methyl-2-pentanone (MIBK) (ppbv)	Toluene (ppbv)	trans-1,3-Dichloropropene (ppbv)	1,1,2-Trichloroethane (1,1,2 TCA) (ppbv)	Tetrachloroethene (PCE) (ppbv)	2-Hexanone (ppbv)	Dibromochloro-methane (ppbv)	1,2-Dibromoethane (EDB) (ppbv)	Chlorobenzene (ppbv)	Ethylbenzene (ppbv)	Xylenes (total) (ppbv)	m-Xylene & p-Xylene (ppbv)	o-Xylenes (ppbv)	Styrene (ppbv)	Bromoform (ppbv)	1,1,2,2-Tetrachloroethane (ppbv)	4-Ethyltoluene (ppbv)	1,3,5-Trimethylbenzene (ppbv)	
04/01/09	GAC0001X_AV040109_0001 ¹	Effluent	ND<3.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<3.0
04/01/09	GAC0001B_AV040109_0001	Breakthru	ND<3.0	1.2J	ND<3.0	ND<2.0	ND<2.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<3.0
04/01/09	GAC0001U_AV040109_0001	Influent	1.3J	680	ND<20	ND<13	ND<13	910	250	ND<13	ND<13	23	ND<65	ND<13	ND<13	ND<13	ND<13	ND<13	ND<13	ND<13	ND<13	ND<13	ND<13	ND<13	ND<13	ND<20
05/01/09	GAC0001X_AV050109_0001	Effluent	ND<3.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<3.0
05/01/09	GAC0001B_AV050109_0001	Breakthru	ND<3.0	1.7J	ND<3.0	ND<2.0	ND<2.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<3.0
05/01/09	GAC0001U_AV050109_0001	Influent	1.1J	660	ND<18	ND<12	ND<12	430	110	ND<12	ND<12	23	ND<61	ND<12	ND<12	ND<12	ND<12	ND<12	ND<24	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12	ND<18
06/01/09	GAC0001X_AV060109_0001	Effluent	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<3.0	ND<2.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
06/01/09	GAC0001B_AV060109_0001	Breakthru	ND<1.0	1.6	ND<1.0	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<3.0	ND<2.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
06/01/09	GAC0001U_AV060109_0001	Influent	5.7	380	ND<1.0	ND<1.0	ND<1.0	9.1	1.7	ND<1.0	4.4	25	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<3.0	ND<2.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0

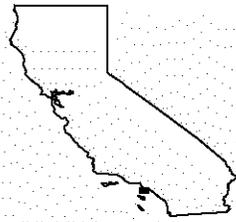
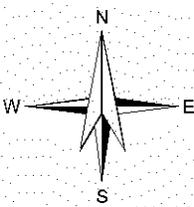
Table II: System Laboratory Analytical Data
Site Name: BRC Former C-6 Facility
Location: Los Angeles, California
System: Building 1/36 Interim Action SVE System

SAMPLE DATE	LAB ID	SAMPLE LOCATION	COMPOUND								
			1,2,4-Trimethylbenzene (ppbv)	1,3-Dichlorobenzene (ppbv)	1,4-Dichlorobenzene (ppbv)	Benzyl chloride (ppbv)	1,2-Dichlorobenzene (ppbv)	1,2,4-Trichlorobenzene (ppbv)	CO2 (%)	Oxygen (%)	Methane (%)
04/01/09	GAC0001X_AV040109_0001 ¹	Effluent	ND<3.0	ND<4.0	ND<4.0	ND<10	ND<2.0	ND<5.0	NA	NA	NA
04/01/09	GAC0001B_AV040109_0001	Breakthru	ND<3.0	ND<4.0	ND<4.0	ND<10	ND<2.0	ND<5.0	NA	NA	NA
04/01/09	GAC0001U_AV040109_0001	Influent	ND<20	ND<26	ND<26	ND<65	ND<13	ND<33	NA	NA	NA
05/01/09	GAC0001X_AV050109_0001	Effluent	ND<3.0	ND<4.0	ND<4.0	ND<10	ND<2.0	ND<5.0	NA	NA	NA
05/01/09	GAC0001B_AV050109_0001	Breakthru	ND<3.0	ND<4.0	ND<4.0	ND<10	ND<2.0	ND<5.0	NA	NA	NA
05/01/09	GAC0001U_AV050109_0001	Influent	ND<18	ND<24	ND<24	ND<61	ND<12	ND<30	NA	NA	NA
06/01/09	GAC0001X_AV060109_0001	Effluent	ND<1.0	ND<1.0	ND<1.0	ND<5.0	ND<1.0	ND<1.0	NA	NA	NA
06/01/09	GAC0001B_AV060109_0001	Breakthru	ND<1.0	ND<1.0	ND<1.0	ND<5.0	ND<1.0	ND<1.0	NA	NA	NA
06/01/09	GAC0001U_AV060109_0001	Influent	ND<1.0	ND<1.0	ND<1.0	ND<5.0	ND<1.0	ND<1.0	NA	NA	NA



G:\28892 C-6629\GIS\Map\Projects\28892_629_0001_SiteLocationMap.mxd

SITE COORDINATES : 118° 18' 08.8" W 33° 51' 10.9" N



USGS QUADRANGLE: TORRANCE, CA

HALEY & ALDRICH

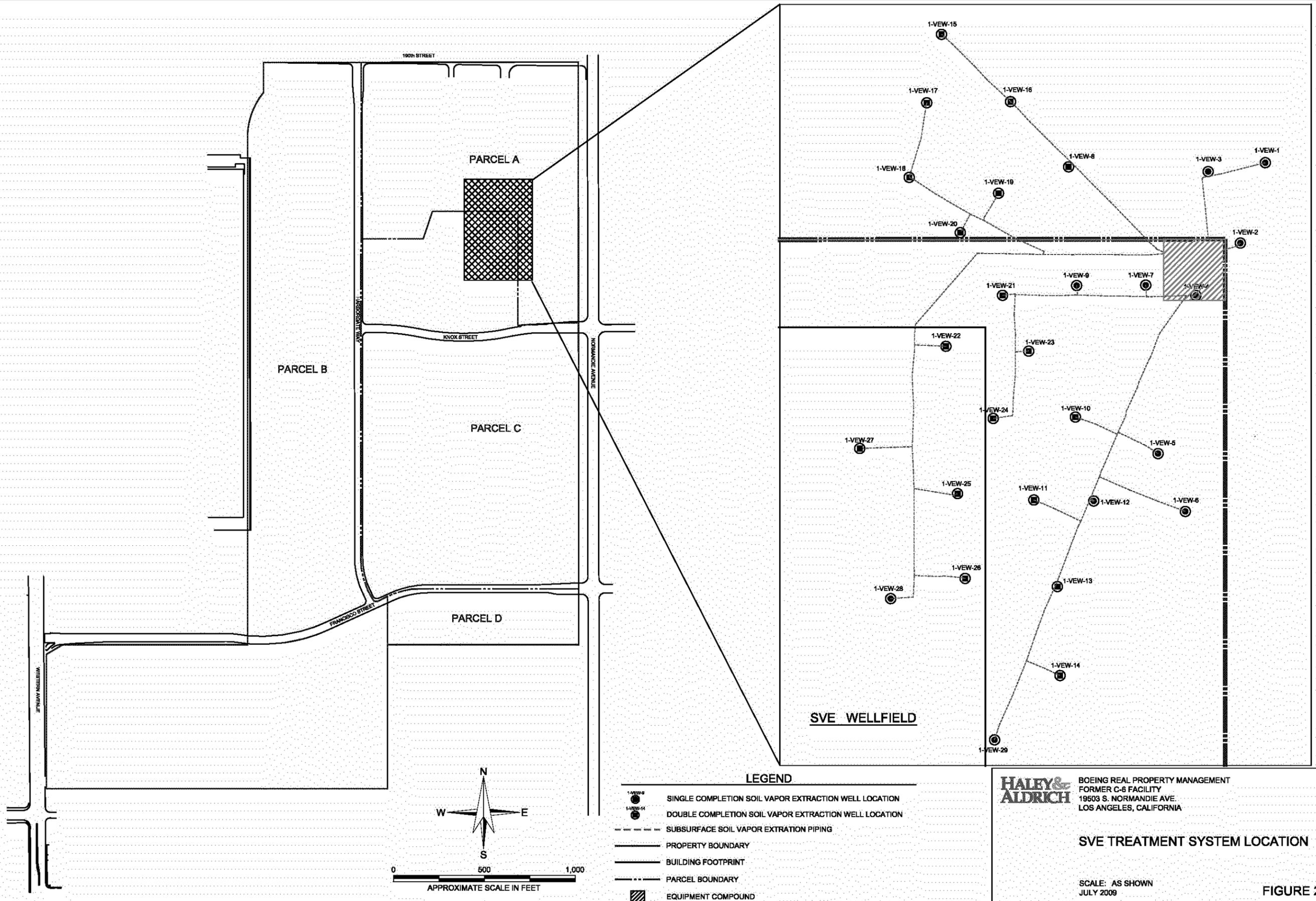
BOEING REAL PROPERTY MANAGEMENT
 FORMER C-6 FACILITY
 1903 S. NORMANDIE AVE.
 LOS ANGELES, CALIFORNIA

SITE LOCATION MAP

SCALE: 1:24,000
 JULY 2009

FIGURE 1

\\SDG\COMMON\28882 C-6\29\CAD\DRAWINGS\28882-629-0002-SVE TREATMENT SYSTEM.DWG



HALEY & ALDRICH BOEING REAL PROPERTY MANAGEMENT
 FORMER C-6 FACILITY
 19503 S. NORMANDIE AVE.
 LOS ANGELES, CALIFORNIA

SVE TREATMENT SYSTEM LOCATION

SCALE: AS SHOWN
 JULY 2009

FIGURE 2

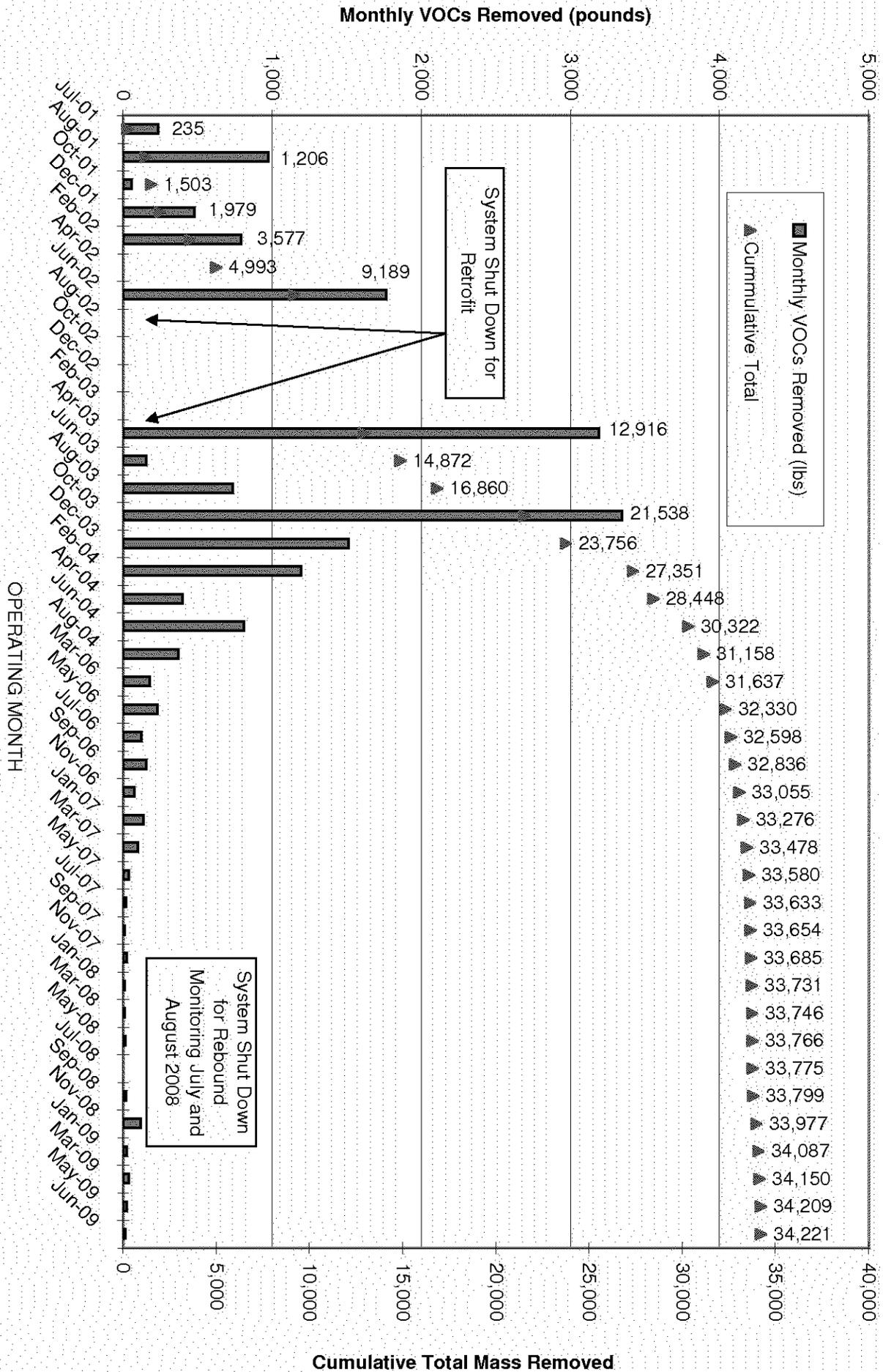


FIGURE 3
CUMULATIVE MASS REMOVED